

Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) An electro-optical device, comprising:

a plurality of scanning lines;

a plurality of data lines;

a plurality of pixel circuits including a plurality of electro-optical elements provided to correspond to intersections of the plurality of scanning lines and the plurality of data lines;

a data line driving circuit to supply a data voltage through the data line to each of the pixel circuits;

first switches that are part of a precharge circuit to control the supply of a precharge signal from a precharge signal supply line connected to at least one data line of the plurality of data lines, the precharge signal being less than a data voltage;

second switches connected to the at least one data line of the plurality of data lines to control the output of a detection signal from the at least one data line to test lines, the detection signal being used for testing whether a sufficient data voltage has been written in the pixel circuits; and

a data line selection circuit to set the on or off state of the second switches,

each of the test lines being shared with a corresponding precharge supply line, line to form a shared line that extends at least from a connection with the at least one data line along one line toward a precharge signal-generating circuit and an output of the detection signal.

2. (Currently Amended) An electro-optical device, comprising:

a plurality of scanning lines;

a plurality of data lines;

a plurality of pixel circuits including a plurality of electro-optical elements provided to correspond to intersections of the plurality of scanning lines and the plurality of data lines;

a data line driving circuit to supply a data voltage through the data line to each of the pixel circuits;

first switches that are part of a precharge circuit to control the supply of precharge signals from input and output signal lines connected to at least one data line of the plurality of data lines to the at least one data line and to control the output of a test signal from the at least one data line to the input and output signal lines, the precharge signal being less than a data voltage; and

a data line selection circuit to set the on or off state of the first switches,
~~each signal line that outputs the test signal being shared with a corresponding signal line that supplies the precharge signal; a test line for the test signal being shared with the input and output signal lines to form a shared line that extends at least from a connection with the at least one data line along one line toward a precharge signal-generating circuit and an output of the test signal.~~

3. (Currently Amended) An electro-optical device, comprising:

a plurality of scanning lines;

a plurality of data lines;

a plurality of pixel circuits including a plurality of electro-optical elements provided to correspond to intersections of the plurality of scanning lines and the plurality of data lines;

at least two precharge lines to supply precharge signals to at least two data lines of the plurality of data lines;

a data line driving circuit to supply a data voltage through the data line to each of the pixel circuits;

first switches that are part of a precharge circuit to control the output of the precharge signals from the at least two precharge lines to the at least two data lines, each precharge signal being less than a data voltage; and

second switches to control the output of detection signals from the at least two data lines of the plurality of data lines to test lines, the detection signal being used for testing whether a sufficient data voltage has been written in the pixel circuits, each of the test lines being shared with a corresponding precharge supply ~~line~~; line to form a shared line that extends at least from a connection with the at least one data line along one line toward a precharge signal-generating circuit and an output of the detection signal.

4. (Original) An electro-optical device according to Claim 3, further comprising:

a data line selection circuit to control precharge signals output from the at least two data lines to the test lines by sequentially operating the second switches.

5. (Currently Amended) A method of driving an electro-optical device, including:

a plurality of scanning lines;

a plurality of data lines wired to intersect the scanning lines;

a plurality of pixel circuits including electronic circuits provided to correspond to intersections of the scanning lines and the data lines;

a data line driving circuit to supply a data voltage through the data line to each of the pixel circuits;

first switches that are part of a precharge circuit to control the supply of a precharge signal from a precharge signal supply line connected to at least one data line of the plurality of data ~~lines~~; lines, the precharge signal being less than a data voltage; and

second switches connected to the at least one data line of the plurality of data lines to control the output of a detection signal from the at least one data line to test lines, the detection signal being used for testing whether a sufficient data voltage has been written in the pixel circuit, each of the test lines being shared with a corresponding precharge supply line, line to form a shared line that extends at least from a connection with the at least one data line along one line toward a precharge signal-generating circuit and an output of the detection signal.

the method comprising:

supplying a precharge signal from a precharge signal supply line to the data lines through the first switches when one of the plurality of scanning lines is selected;

supplying data signals to electronic circuits connected to the selected scanning line through the data lines;

outputting data signals supplied to the data lines as detection signals to test lines through the second switches; and

using the detection signals for testing whether a sufficient data voltage has been written in the pixel circuit.

6. (Currently Amended) A method of driving an electro-optical device, including:

a plurality of scanning lines;

a plurality of data lines wired to intersect the scanning lines;

a plurality of pixel circuits including electronic circuits provided to correspond to intersections of the scanning lines and the data lines;

at least two precharge lines to supply precharge signals to at least two data lines of the plurality of data lines;

a data line driving circuit to supply a data voltage through the data line to each of the pixel circuits;

first switches that are part of a precharge circuit to control the output of the precharge signals from the at least two precharge lines to the at least two data lines, each precharge signal being less than a data voltage; and

second switches to control the output of detection signals from the at least two data lines of the plurality of data lines to test lines, the detection signal being used for testing whether a sufficient data voltage has been written in the pixel circuit, each of the test lines being shared with a corresponding precharge supply ~~line-line to form a shared line that extends at least from a connection with the data line along one line toward a precharge signal-generating circuit and an output of the detection signal.~~

the method comprising:

supplying a precharge signal from a precharge signal supply line to the data lines through the first switches when one of the plurality of scanning lines is selected;

supplying data signals to electronic circuits connected to the selected scanning line through the data lines;

outputting data signals supplied to the data lines as detection signals to the test lines through the second switches; and

using the detection signals for testing whether a sufficient data voltage has been written in the pixel circuit.

7. (Original) An electronic apparatus equipped with the electro-optical device according to Claim 1.

8. (Canceled)

9. (Previously Presented) An electro-optical device of claim 1, the first switches control the supply of at least three precharge signals, one each selected for red, green, and blue pixel circuits.

10. (Canceled)

11. (Previously Presented) An electro-optical device of claim 2, the first switches control the supply of at least three precharge signals, one each selected for red, green, and blue pixel circuits,

12. (Previously Presented) An electro-optical device of claim 3, the test lines are shared with the at least two precharge lines.

13. (Previously Presented) An electro-optical device of claim 3, the first switches control the supply of at least three precharge signals, one each selected for red, green, and blue pixel circuits.

14. (Canceled)

15. (Previously Presented) A method of claim 5, the first switches control the supply of at least three precharge signals, one each selected for red, green, and blue pixel circuits.

16. (Canceled)

17. (Previously Presented) A method of claim 6, the first switches control the supply of at least three precharge signals, one each selected for red, green, and blue pixel circuits.

18. (New) The electro-optical device according to claim 1, wherein the shared line extends from at least the connection with the at least one data line to a third switch, wherein the third switch controls the supply of the precharge signal from the precharge signal-generating circuit to the shared line, and controls the output of the detection signal.

19. (New) The electro-optical device according to claim 2, wherein the shared line extends from at least the connection with the at least one data line to a second switch, wherein the second switch controls the supply of the precharge signals from a precharge signal-generating circuit to the shared line, and controls an output of the test signal.

20. (New) The electro-optical device according to claim 3, wherein the shared line extends from at least the connection with the at least one data line to a third switch, wherein the third switch controls the supply of the precharge signal from the precharge signal-generating circuit to the shared line, and controls the output of the detection signal.

21. (New) The method according to claim 5, wherein the shared line extends from at least the connection with the at least one data line to a third switch, wherein the third switch controls the supply of the precharge signal from the precharge signal-generating circuit to the shared line, and controls the output of the detection signal.

22. (New) The method according to claim 6, wherein the shared line extends from at least the connection with the at least one data line to a third switch, wherein the third switch controls the supply of the precharge signal from the precharge signal-generating circuit to the shared line, and controls the output of the detection signal.